REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Discussion of Amendments

By way of the amendment instructions above, claims 11-18 drawn to a patentably distinct invention nonelected for prosecution have been canceled. Cancellation of such claims has, however, been effected without prejudice to the applicants' rights under 35 USC §121.

The embedded preferred ranges in claims 5 hand 6 have been deleted and now appear in new claims 19-22. In addition, claim 10 has been amended for purpose of clarity and to address the Examiner's objection with respect to the original use of the abbreviation therein.

Therefore, following entry of this amendment, claims 1-10 and 19-22 will remain pending herein for consideration.

2. Response to 35 USC §112 Rejection

The amended and new claims presented above are believed to address all issues raised under 35 USC §112, second paragraph. Therefore, since the amended and new claims are statutorily definite, withdrawal of the rejection advanced under 35 USC § 112, second paragraph is in order.

3. Response to 35 USC §103(a) Rejection

Claims 1-3 and 5-7 attracted a rejection under 35 USC §103(a) as allegedly being "obvious" and hence unpatentable over Tanekawa (USP 4,303,680) while claims 4 and 8-9 were rejected under the same statutory provision as allegedly unpatentable over Tanekawa as evidenced by Halasz (*Use of Yeast Biomass in Food Production*,

1991, CRC Press, Inc., pp. 115-122 and p. 248). Applicants suggest that the rejections are inappropriate against the pending claims herein for the following reasons.

Pending independent claim 1 relates to a process to produce a composition containing 5-ribonucleotides comprising:

a) subjecting a microorganism to autolysis under conditions at which a substantial part of the RNA remains in a form degradable into 5'-ribonucleotides and at which a substantial part of the RNA remains associated with the cell wall fraction;

b) subjecting the autolysate to solid/liquid separation and –recovering the RNA-containing cell wall fraction; and

c) converting the RNA in the recovered RNA-containing cell wall fraction into 5'-ribonucleotides.

In the process as defined by pending claim 1 the RNA-containing cell wall fraction is ***recovered*** (step b) and the conversion of RNA to 5'-ribonucleotides is applied ***on the recovered RNA-containing cell wall fraction*** (step c).

In contrast, in the process of Tanekawa the insoluble residue, which according to Tanekawa is mainly cell walls of yeast, may be removed (col. 4, lines 13-17). In the event that the insoluble residues are removed prior to hydrolysis of RNA (i.e. if step (3) occurs before step (4)), the conversion of RNA to 5-ribonuoleotides is applied on the autolysate solution (col. 4, line 22) -- ***not*** on the (removed) cell wall fraction.

In other words, whereas the presently claimed invention uses the ***insoluble*** (= cell wall) fraction to convert the RNA to 5'-ribonucleotides, Tanekawa uses the ***soluble*** fraction to hydrolyse RNA.

The Examiner asserts that:

> *"...as Tenekawa teaches that the autolysate suspension can be hydrolyzed, Tanekawa teaches conversion of RNA contained in the cell walls."* (Official Action at page 4, penultimate paragraph)

The latter part of this statement is however an erroneous conclusion.

Specifically, according to Tanekawa (col. 3, lines 33-34) 50 – 80% of the RNA remains not decomposed in the autolyzed yeast cells. At this stage there is no cell wall fraction. The autolysed yeast cells are still actual cells. Indeed, on col. 3, lines 49-50 Tanekawa mentions that after autolysis the remaining intracellular RNA in the autolysed yeast cells can be extracted.0

Nowhere in Tanekawa Is there any reference that cell walls contain RNA or that RNA contained in the cell walls can be hydrolyzed.

Indeed up to step 2) (i.e the heating step) there is no reference to a cell wall fraction. According to Tanekawa (col. 4, lines 13-16) a cell wall fraction occurs only after the extraction of RNA (after heating) as insoluble residue.

Tanekawa does not even suggest that the RNA is contained in the cell walls. Indeed, if the RNA were contained in the cell walls, why would Tanekawa continue with the solution and remove insoluble residue (= cell walls)? An ordinarily skilled person would thus be guided away from using the cell walls.

The proper conclusion to be gleaned from Tanekawa is that the invention as defined by pending claims 1-3 and 5-7 herein is patentably *un*obvious over Tanekawa. Withdrawal of the rejection advanced under 35 USC §103(a) against such claims is therefore in order.

The comments above are equally germane to the rejection advanced against claims 4 and 8-9 under 35 USc §103(a) based on the combination of Tanekawa and Halasz. Simply stated, Halasz fails to cure the deficiencies of Tanekawa as previously discussed. Accordingly, withdrawal of the rejection advanced under 35 USC §103(a) against claims 4 and 8-9 is likewise in order.

Early receipt of the Official Allowance Notice is awaited. Should any informal matters remain outstanding, however, the Examiner is encouraged to telephone the applicants' undersigned attorney so the same may be resolved without the need for a further written action and reply.

4. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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